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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Rene Langhans

Title: ROTARY CUTTING UNIT

Serial No.: 08/883,685

Filed: June 7, 1997

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) Examiner: C. Goodman

)

) Group Art Unit: 3734

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) (Atty. Docket No. 2821-193)

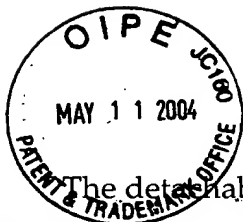
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SUBMISSION OF FORMAL DRAWINGS

Pursuant to the Notice of Allowance, Applicant submits a new set of formal drawings.

In the enclosed drawing of Fig. 1 the reference numerals have been interchanged for consistency with the specification to meet the requirements set out by the Examiner in Paper No. 22, a copy of which is enclosed.



The detachable drive unit 30 has been added schematically in Fig. 1 as previously offered even though the means for releasably coupling has been removed from independent claims 1 and 18.

Fig. 2 has been amended to include the designated reference " α " in response to Examiner's objection in Paper No. 22 (enclosed).

Applicant has found no formal approval of the previously submitted detachable drive unit as illustrated in Fig. 1 or the reference " α " included in Fig. 2. However, Examiner's comments on page 2, paragraph 3, last sentence of the enclosed Paper No. 22 are interpreted to be Examiner's approval of the above-identified amendments.

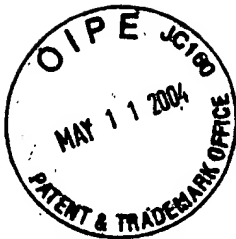
No fee is believed to be due in connection with the submission of Formal Drawings. However, please charge any deficiencies to our Deposit Account No. 13-0235.

Respectfully submitted,

By

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/883,685

06/27/97

LANGHANS

R

59-118-3

GM12/0308
MCCORMICK, PAULDING & HUBER
CITYPLACE II, 185 ASYLUM STREET
HARTFORD CT 06103-4102

EXAMINER

GOODMAN, C

ART UNIT

PAPER NUMBER

3724

DATE MAILED:

03/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

DOCKET <i>JCL</i>	
FILE	<i>2821-193</i>
FOR	<i>Lom 6/8/2000</i>
DATE	<i>3/10/00</i> BY <i>Qin</i>

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McCormick, Paulding & Huber



Office Action Summary

Application No.

08/883,685

Applicant(s)

LANGHANS, RENE

Examiner

Charles Goodman

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 1999.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 02 August 1999 is: a) ☐ approved b) ☒ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☒ received in Application No. (Series Code / Serial Number) 08/182,074.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☐ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 17) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other: _____

Art Unit: 3724

DETAILED ACTION

1. The Amendment filed on August 2, 1999 has been entered in part. The amendment to claim 21 had not been entered because it is not clear where the proposed amendments are supposed to be introduced into the claim. It appears that the line designation might be in error.¹ However, based upon the supplied clean copy of claim 21 at then end of the above mentioned Amendment, claim 21 has been amended by the following Informal Examiner's Amendment.

In claim 21, line 10, after the term "second", the term -- circular -- has been inserted.

In claim 21, line 19, the phrase "non-positively" has been replaced with -- releasably --.

In claim 21, line 22, after the term "circular", the term -- circular -- has been inserted.

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on August 2, 1999 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of the slot in the upper leg 51 and the circumferential slots on the bush 13 as shown in the proposed new Figure. However, favorable consideration will be given if Applicant submits the proposed drawing corrections to Figs. 1-2.

Specification

3. The disclosure is objected to because of the following informalities:

¹ Compare the clean copy of claim 21 at the end of the Amendment filed on August 2, 1999 and claim 21 in the Preliminary Amendment filed on November 20, 1997.

Art Unit: 3724

- i. P. 5, l. 24, the phrase "...subtending an acute angle α of about 10° " is not clearly understood. Where is this angle shown in the drawings?

Appropriate correction is required.

Drawings

4. The drawings are objected to because references "26" and "27" should be interchanged to maintain consistency with the depiction in Fig. 1. Correction is required.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "means for releasably coupling" (claim 1, first occurrence) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

OK
square
drawings
as explain
spec p. 6

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: " α " (p. 5, l. 24).
Correction is required.

shown in
Fig. 2

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-3, 5-8, 10-12, and 14-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable

Art Unit: 3724

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

P. 7, ll. 11-21, the description of how the bush is displaced is confusing. The Examiner's comments on this issue in the last Office Action, Paper No. 16, ¶ 11, applies equally here. Moreover, Applicant's explanation on this issue is noted.² However, the disclosure as originally filed does not show any "means" outside of the pin wrench 25 and the slot that the wrench fits through (Fig. 4 in application) that would allow for turning of the bush 13. The proposed new drawing Figure sheds some light on this issue, but it includes many details that were not originally disclosed. Thus, it has been disapproved.

P. 7, l. 29 to p. 8, l. 14, the description of the comparison between the prior art and the state of the art is not clearly understood. The Examiner's comments on this issue in the last Office Action, Paper No. 16, ¶ 11, applies equally here. Moreover, Applicant's explanation on this issue is noted.³ However, Applicant still fails to provide the requisite nexus between the prior art representations and the invention. Applicant states that *certain* measurements and values from the prior art has been used as a baseline of 100%. What were those measurements and values? Again, without more, it would appear that the alleged advantages that the table is presumably showing is nothing more than a direct result of smaller diameter blades. Applicant traverses the Examiner's characterization on this issue by stating that the Examiner "oversimplified" the significance of the present invention. How? It is acknowledged that the blade diameter, shaft diameter, cutting angle, and cutting force on the blade are all interrelated.

² See Amendment C, Paper No. 20, p. 7, ll. 5-12.

Art Unit: 3724

However, that does not detract from the fact that a smaller diameter blade does not require as large a shaft diameter, cutting angle, and cutting force of a larger blade since the required shaft diameter, cutting angle, and the cutting force is *directly related* (or proportional) to the diameter of the blade. As Applicant states,

*“Large blade diameters, in turn, reduce cutting angle, thereby requiring more cutting force and demanding larger shafts.”*⁴ (emphasis added).

Thus, if this is true, then smaller diameter blades must have proportional characteristics, i.e. smaller diameter blades must have an increased cutting angle and requires less force and smaller diameter shafts.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-3, 5-8, 10-12, and 14-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

i. In claim 1, ll. 21-22, the “means for releasably coupling...” clause is vague and indefinite in that it is not clear what the clause encompasses. What is the particular “means” referring to? What structural features are encompassed by this “means”? The same applies to the rest of the claims. Applicant’s explanation on

³ See *Id.*, p. 7, l. 13 – p. 8, l. 11.

⁴ See *Id.*, p. 8, ll. 7-9.

Art Unit: 3724

this issue is noted.⁵ However, the specification as originally filed fails to show any particulars with respect to the drive unit being detachable.

- ii. Claim 6 is vague and indefinite in that it is not clear what the claim encompasses. What is the scope of the claim such that a “circular cutter unit”, which is assumed and implied to be referring to a specific part of a broader cutting apparatus, further comprises at least one guide rail? As best understood of the specification, it would seem that, at most, the “circular cutter unit” would comprise a means to *allow* displacement of the frame as opposed to the “means” as claimed herein. Applicant’s explanation on this issue is noted.⁶ However, Applicant misses the point. The claims are directed to a “cutting unit”. By definition, this is only one of several “units” that can be mounted on a *broader* cutting apparatus. Moreover, the claimed “at least one guide rail” is not a part of the cutting unit but rather the cutting apparatus. In addition, the claimed “means” implies a positive structure that displaces the cutting unit which is contrary to what is disclosed. Thus, the scope of the claim is not clear.
- iii. Claim 7 is vague and indefinite in that it is not clear what the claim encompasses. What is the structural line of distinction between the “means for rotatably supporting” including the axially displaceable bush *and* the “means for establishing and adjusting the cutting gap” of claim 1 since the bush facilitates the adjustment?

⁵ See *Id.*, p. 8, l. 23 – p. 9, l. 7.

Art Unit: 3724

- iv. Claim 10 is not clearly understood. What is the "cutting angle" referring to? How is the "angle" defined by an "overlap"? Applicant's explanation on this issue is noted.⁷ However, the specification as opposed to Applicant's comments in the previous Amendments, does not set forth the argued definition. Thus, the claim is still unclear.
- v. In claims 12 and 17, the phrase "said horizontal plane" lacks clear antecedent basis.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. As best understood, claims 1-3, 5-8, and 10-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al.

Suzuki et al discloses a gang slitting machine comprising all the elements claimed including a plurality of cutter units 15A, 15B; each unit having upper and lower circular blades 17, 19; upper and lower blade shafts 131, 163; a non-positive drive connection between the shafts including a transport ring 143, 173 wherein the drive connection is frictional; a frame 25A, 25B, 27, 29, 31A, 31B, 33A, 33B having a substantially U-shape; upper leg 25A, 25B; lower leg 27; a flat

⁶ See *Id.*, p. 9, ll. 8-14.

Art Unit: 3724

yoke 37A, 37B, 39A, 39B disposed at an acute angle; means 133, 135, 165, 167 for rotatably supporting the blade shafts; means for establishing and adjusting a cutting gap between the circular blades (col. 9, lines 24-31) within the range as claimed; an inherent means for releasably coupling one of the circular blade to a driving unit having a motor 299 since the connection thereof is inherently detachable; means for displaceably mounting the frame including at least one guide rail 81; a cutting angle within the range as claimed since the blades are overlapping within the range as claimed; each of the shafts have a diameter within the range as claimed since they are relatively small as depicted in the Figures; it appears that the yoke have the acute angle within the range as claimed (see Fig. 4); means 77 on each frame slidably engaging the guide rails; and means 129, 161 for transmitting drive motion provided by the driving unit. See whole document.

Response to Arguments

13. Applicant's arguments filed August 2, 1999 have been fully considered but they are not persuasive.

In response to Applicant's basic argument that Suzuki et al does not anticipate the claimed invention,⁸ this argument lacks merit. First, Applicant basically asserts that Suzuki et al lacks a single drive shaft to drive the entire cutter unit. What relevance does this have with respect to the claimed invention? None of the claims require a single drive shaft to drive the entire cutter unit. The claims merely call for a "means" for releasably coupling one of the cutters

⁷ See *Id.*, p. 9, l. 22 – p. 10, l. 1.

Art Unit: 3724

of the cutting unit to a driving unit. Thus, it is irrelevant whether or not Suzuki et al includes the argued lacking feature. Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Second, Applicant asserts that Suzuki et al lacks the flat, interconnecting yoke. How? Any one of the features 37A, 37B, 39A, 39B in Suzuki et al identified by the Examiner as reading on the “yoke” limitation anticipates this feature. They are flat; they interconnect between the two legs of each of the cutting units; and they are disposed at an intersecting acute angle within the claimed range with respect to the plane of the sheet metal. Moreover, just because the yoke in Suzuki et al is not of the same shape as that disclosed in the application does not contradict this reading of Suzuki et al. Applicant is again reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *Id.* Thus, contrary to Applicant’s assertions, Suzuki et al includes and anticipates the argued limitations.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

⁸ See *Id.*, p. 10, l. 13 – p. 11, l. 5.

Art Unit: 3724

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Goodman whose telephone number is (703) 308-0501. The examiner can normally be reached on Monday-Thursday between 7:30 AM to 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada, can be reached on (703) 308-2187. The fax phone number for this Group is (703) 305-3579.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [rinaldi.rada@uspto.gov].


All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official

Art Unit: 3724

Gazette of the Patent and Trademark on February 25, 1997 at 1195
OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Charles Goodman
Patent Examiner
AU 3724

cg 
March 2, 2000



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700